

STEPPING STONE
SCHOOL (HIGH)

CLASS: 6

Subject: Physics

Topic: Answer-Script

Answer to Worksheet No. :7 to 9

Worksheet No – 7 (Date-01/06/2020)

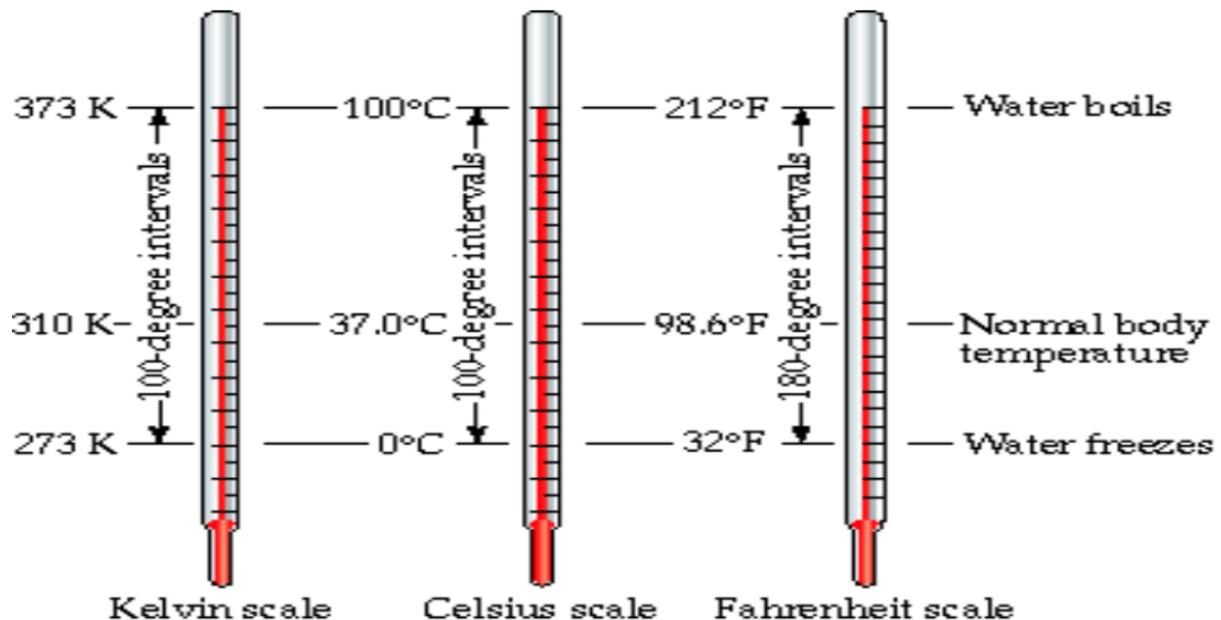
Fill in the blanks

- (i) The temperature at which water freezes is known as **Freezing-point.**
- (ii) The upper fixed point of commonly used thermometer is also known as **Boiling-point.**
- (iii) Freezing point in Kelvin scale is **273 K .**
- (iv) The difference between melting & boiling point in Fahrenheit scale is divided into **180** division.
- (v) The temperature at which water boils is known as **Boiling-point .**
- (vi) In **Celsius scale** & **Kelvin scale** the number of division are same between two points.
- (vii) Boiling point of water in Fahrenheit scale is **212 °F.**

Answers

- (i) A thermometer is used to measure the temperature of an object.
- (ii) Some commonly used temperature scales are **the Celsius scales,**
the Fahrenheit scales & the kelvin scale.
- In **Celsius scale**, the melting point of ice is taken as 0 °C and the boiling point of water as 100 °C. The difference between the two points is divided into 100 degrees.

- In Fahrenheit scale, the lower fixed point or the melting point of ice is 32 °F and the upper fixed point or the boiling point of water is 212 °F. The difference between these two points is divided into 180 degrees.
- In Kelvin scale, the lower fixed point or melting point is 273 K and upper fixed point or boiling point is 373 K. The difference between these two points is divided into 100 degrees.



(iii). Let the temperature in °C be = X

By relation $\frac{C}{5} = \frac{F-32}{9}$ we get,

$$\frac{X}{5} = \frac{-40 - 32}{9}$$

$$\frac{X}{5} = \frac{-72}{9} \text{ or } X = \frac{5 \times -72}{9}$$

$$X = \frac{-360}{9} \text{ or } X = -40$$

Ans. Temperature in °C = -40

Worksheet No – 8 (Date-03/06/2020)

Fill in the blanks

- (i) Maximum & minimum temperature of a day is measured by **Six's Maximum and Minimum Thermometer** .
- (ii) A laboratory thermometer scale ranging from **-10 °C to 110 °C**.
- (iii) A minimum temperature measured by Clinical thermometer is **35 °C or 94 °F**.
- (iv) A maximum temperature measured by laboratory thermometer is **42 °C or 108 °F**.
- (v) $42^{\circ}\text{C} = 108^{\circ}\text{F}$.
- (vi) Thermometric liquid used in Six's maximum & minimum thermometer is **mercury** and **alcohol**.

Answers

1. Fahrenheit scale is more sensitive than the Celsius scale that's why body temperature is measured in °F only.
2. Six's maximum and the minimum thermometer is used for measuring the day's maximum and minimum temperature.
3. Lab thermometers are used to measure the temperature in school and other laboratories for scientific research. A laboratory thermometer has only the Celsius scale ranging from -10 °C to 110 °C.



Worksheet No – 9 (Date-05/06/2020)

1. Approximation is a quick judgment about the measurement of a particular quantity. It is generally made by using the senses of sight, touch, hearing, taste or smell.

2. Approximation are useful as they save time in our daily life, we use approximation in many situation such as cooking, time taken to reach a certain place, estimating height of anyone etc. but it should be avoided when accuracy is required.
3. No we cannot able to measure everything accurately because in daily life for saving time in most of places we generally follow approximation for the measurement of a physical quantity.
4. Some precautions that must be followed during measurement to stop dishonesty are-
 - The beam balance should not be riveted or welded at the handle.
 - The two arm of the balance should be equal.
 - The pan should be equal in weight.
 - Make sure that there must be lead in the hole of standard weight, and a proper stamp on the lead.
 - Measuring capacity of measuring can be made less than the correct value by pushing up the bottom of the can by hammering or pouring some lead into the can.
 - The scale used to measure cloth may be less than one meter. Make sure that the arrow mark and stamp of the legal metrology department are there on the scale.
5. Sum of recorded temperature = $(33+37+35+38+40+36+39) \text{ }^\circ\text{C}$
 $= 258 \text{ }^\circ\text{C}$

Number of days = 7

Average temperature for a week = $\frac{258}{7} = 36.86 \text{ }^\circ\text{C}$
